

PTO/SB/08A (08-00)

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Complete if Known			
		Application Number	09/954,571		
		Filing Date	September 11, 2001		
		First Named Inventor	Kenneth R. CHIEN		
		Group Art Unit	1646 1638		
Examiner Name	unknown KAUSMAL				
Sheet	1	of	2	Attorney Docket Number	6627-PA0123

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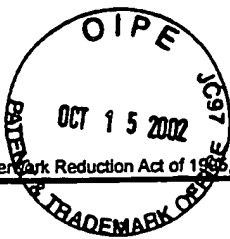
U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
		Number	Kind Code ² (if known)				
2	1	5,652,122		Frankel et al.	07-29-1997		
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ³
		Office ³	Number ⁴ (if known)	Kind Code ⁵			
2	2	PCT	WO 00/25804		The Regents of the University of California	05-11-2000	
2	3	PCT	WO 97/37224		Medical Research Council	10-09-1997	
2	4	PCT	WO 99/30696		Orion Corporation	06/24/1999	
2	5	France	2,753,722 (abstract translated)		Smithkline Beecham	03-27-1998	X
OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					T ²
2	6	Dillmann, Wolfgang, Influences of Increased Expression of the Ca ²⁺ ATPase of the Sarcoplasmic Reticulum by a Transgenic Approach on Cardiac Contractility. Annals New York Academy of Sciences, pp. 43-48, 1998					
2	7	Donahue, J. Kevin et al. Ultrarapid, highly efficient viral gene transfer to the heart. Proc.Natl.Acad.Sci. USA vol. 94, 4664-4668, 1997					

Examiner Signature		Date Considered	5/12/05
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		Group Art Unit	T646		
Examiner Name	unknown				
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8	He, Huaping et al. Effects of Mutant and Antisense RNA of Phospholamban on SR Ca ²⁺ -ATPase Activity and Cardiac Myocyte Contractility. Circulation, 974-980, 1999
9	He, Huaping et al. Influence of an Antisense Phospholamban Transcribed by an Adenoviral Vector on Ca ²⁺ ATPase in Cardiac Myocytes. Journal of Molecular and Cellular Cardiology, vol. 29, No. 6, A181, 1997
10	Ikeda, Yasuhiro et al. In Vivo Gene Transfer of Deficient δ -Sarcoglycan Protein in BIO14.6 Cardiomyopathic Hamster Hearts. Circulation, 313, 2000
11	Koss, Kimberly et al. Phospholamban: A Prominent Regulator of Myocardial Contractility. Circulation Research, vol. 79, No. 6, 1059-1063, 1996
12	Logeart, Damien et al. Highly Efficient Adenovirus-Mediated Gene Transfer to Cardiac Myocytes after Single-Pass Coronary Delivery. Human Gene Therapy 11:1015-1022, 2000
13	Logeart, Damien et al. How to Optimize In Vivo Gene Transfer to Cardiac Myocytes: Mechanical or Pharmacological Procedures? Human Gene Therapy 12:1601-1610, 2001
14	Toyofuku, Toshihiko et al. Amino Acids Glu ² to Ile ¹⁸ in the Cytoplasmic Domain of Phospholamban Are Essential for Functional Association with the Ca ²⁺ -ATPase of Sarcoplasmic Reticulum. The Journal of Biological Chemistry, vol. 269, No. 4, 3088-3094, 1994

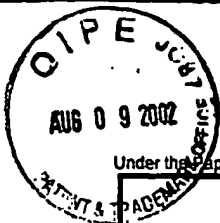
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
Q	1	Arber, S., et al (1997) MLP-deficient mice exhibit a diruption of cardiac cytoarchitechtrual organization, dilated cardiomyopathy, and heart failure. <i>Cell</i> . 88:393-403.	
Q	2	Christensen, G. et al. (2000) High-efficiency, long-term cardiac expression of foreign genes in living mouse embryos and neonates. <i>Circulation</i> . 101:178-84.	
Q	3	Coral-Vazquez, R. et al. (1999) Disruption of the sarcoglycan-sarcospan complex in vascular smooth muscle: A novel mechanism for cardiomyopathy and muscular dystrophy. <i>Cell</i> . 98:465-74.	
Q	4	French, B.A. et al. (1994) Direct <i>in vivo</i> transfer into porine myocardium using replication-deficient adenoviral vectors. <i>Circulation</i> . 90:2414-24.	
Q	5	Frommes, Y. et al. (1999) Gene delivery in the myocardium by intrapericardial injection. <i>Gene Ther</i> . 6:683-8.	
Q	6	Greelish, J.P. et al. (1999) Stable restoration of the sarcoglycam complex in dystrophic muscle perfused with histamine and recombinant adeno-associated viral vector. <i>Nat. Med</i> . 5:439-43.	
Q	7	Gutzman, R.J. et al. (1993) Efficient gene transfer into myocardium by direct injection of adenovirus vectors. <i>Cric. Res</i> . 73: 1202-7.	
Q	8	Hajjar, R.J. et al. (1998) Modulation of ventricular function through gene transfer <i>in vivo</i> . <i>Proc. Natl. Acad. Sci., USA</i> . 95:5251-5256.	

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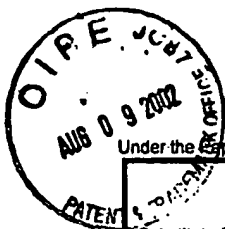
9	Holt, K.M. et al. (1998) Functional rescue of the sarcoglycan complex in BIO 14.6 hamster using delta-sarcoglycan gene transfer. <i>Mol. Cell.</i> 1:841-8
10	Johnson, L.G. (1992) Efficiency of gene transfer for restoration of normal airway epithelial function in cystic fibrosis. <i>Nat. Genet.</i> 2:21-5.
11	Kaplitt, M.G. et al. (1996) Long-term gene transfer in porcine myocardium after coronary infusion of an adeno-associated virus vector. <i>Ann. Thorac. Surg.</i> 62:1669-76.
12	Maeda, Y., et al. (1998) Efficient gene transfer into cardiac myocytes using adeno-associated virus (AAV) vectors. <i>J. Mol. Cell. Cardiol.</i> 30:1341-8.
13	Maurice, J., et al. (1999) Enhancement of cardiac function after adenoviral-mediated <i>in vivo</i> intracoronary beta-2 adrenergic receptor gene delivery. <i>J. Clin. Invest.</i> 104:21-9.
14	Miyamoto, M.I., et al. (2000) Adenoviral gene transfer of SERCA2a improves left-ventricular function in aortic-banded rats in transition to heart failure. <i>Proc. Natl. Acad. Sci. USA.</i> 97:793-98.
15	Mohri, H. et al. (1969) Method of surface-induced deep hypothermia for open-heart surgery in infants. <i>J. Thorac. Cardiovasc. Surg.</i> 58:262-70.
16	Nigro, V., et al. (1997) Identification of the Syrian hamster cardiomyopathy gene. <i>Hum. Mol. Genet.</i> 6:601-7.
17	Ryoke, T., et al. (1999) Progressive cardiac dysfunction and fibrosis in the cardiomyopathic hamster and effects of growth hormone and angiotensin-converting enzyme inhibition. <i>Circulation.</i> 100:1734-43.
18	Sakamoto, A., et al. (1997) Both hypertrophic and dilated cardiomyopathies are caused by mutation in the same gene, delta-sarcoglycan, in hamster: An animal model of disrupted dystrophin-associated glycoprotein complex. <i>Proc. Natl. Acad. Sci. USA.</i> 94:13873-8.

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SE	19	Shah, A.S. et al. (2001) In vivo ventricular gene delivery of a β -adrenergic receptor kinase inhibitor to the failing heart reverses cardiac dysfunction. <i>Circulation</i> 103:1311.	
g	20	Svensson, E.C., et al. (1999) Efficient and stable transduction of cardiomyocytes after intramyocardial infection or intracoronary perfusion with recombinant adeno-associated virus vectors. <i>Circulation</i> . 99:201-5.	
Σ	21	Toyofuku, E., et al. (1994) Amino acids Glu2 to Ile 18 in the cytoplasmic domain of phospholamban are essential for functional association with the Ca^{2+} -ATPase of the sarcoplasmic reticulum. 269:3088-94.	
SE	22	Xiao, X., Li, J., and Samulski, R.J. (1998) Production of high-titer recombinant adeno-associated virus vectors in the absence of helper virus. <i>J. Virol.</i> 72:2224-32.	

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